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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/772,732 | 02/04/2004 | Mitsuo Yokozawa | 500615.20215 | 6819 |
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| REED SMITH, LLP ATTN: PATENT RECORDS DEPARTMENT 599 LEXINGTON AVENUE, 29TH FLOOR NEW YORK, NY 10022-7650 | | | | |
| EXAMINER KOCH, GEORGE R | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 1734 | | | | |

DATE MAILED: 06/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/772,732

Applicant(s)

YOKOZAWA ET AL.

Examiner

George R. Koch III

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 10/042,033.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 3-5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,719,616 to Danjo et al. in view of US Patent No. 4,930,911 to Sampson et al.

Regarding applicants claims 7 and 1, Danjo discloses a thermal transfer cassette and control method comprising the steps of (see Figures 1-3; column 5, lines 22-27; column 5, lines 55-63):

(1) Providing a thermal transfer cassette (item 1) having light diffractive structure (i.e., non-contacting) tag (item 20) that records control information relating to cassette authenticity, type of thermal transfer film therein, and ink characteristics of the film;

(2) Providing the cassette is a thermal transfer printing device (item 2), which is capable of communicating (reading) the light diffractive structure tag by way of tag reader 21,22,23;

(3) Transferring ink from the thermal transfer ribbon (item 11) stored in the cassette 1 by way of heat and pressure application by the thermal transfer head 5 to a substrate 4 based upon information read by the printer from the light diffractive structure tag 20.

Although Danjo et al. do not specifically disclose that the method and cassette is usable in a hot-stamp foiling regime, it would have been obvious to one of ordinary skill in the art at the time of invention that the methodology of Danjo et al. would be applicable to hot-stamp foiling cassettes, such as those disclosed by Sampson motivated by the fact that both thermal transfer printing and hot-stamp foiling are based upon the thermal transfer of a decorative film from a transfer sheet to a substrate wherein the transfer sheet is carried in a cassette which is positioned in an apparatus capable of bringing about transfer by the application of differential pressure and heat thereto.

Regarding applicants claim 3, Danjo et al. disclose that thermal transfer apparatus is capable of varying the transfer conditions in response to the transfer condition data read from the tag (column 5, lines 22-27; column 6, lines 3-24).

Regarding applicants claim 4, Danjo et al. disclose that the tag may also comprise data (an ID code), which speaks to the authenticity of the cassette. Thus, if the cassette is missing this data, or contains unrecognized data, the printer will refuse to function (column 5, line 55 to column 6, line 2).

Regarding applicants claim 5 although Danjo does not specifically disclose that the tag includes an authorized user code, it would have been obvious to one of ordinary skill in the art at the time of invention that the printer of Danjo et al. could be made to function only when the user code on the cassette matches the user code entered by the operator of the apparatus. This is but a simple lock and key algorithm well known in the arts.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Danjo and Sampson as applied to claim 1 above, and further in view of U.S. Patent No. 5,087,137 to Burnard et al.

Danjo and Sampson as applied to claim 1 above do not specifically disclose that the cassette and apparatus are capable of determining the tape depletion as set forth in claim 2.

However, Burnard, also drawn to similar apparatus and methods of control, disclose that the cassette 54 may be provided with data marks 44 which can be read by the printer 58 to determine when the cassette is depleted (abstract; Figures 1-6; column 6, line 28 to column 7, line 2), which is mathematically identical to the limitations set out in claim 2. One in the art would appreciate that such a control method would allow for continued functioning by allowing for an alert as to the need for replacement of the ribbon. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention that the tag of Danjo could be modified to include the degree of tape supply such that the printing apparatus could determine when the tape is exhausted by counting down in order to achieve continued functioning and reduced non-operational time.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Danjo and Sampson as applied to claim 1 above, and further view of U.S. patent No. 5,035,325 to Kitsuki.

Danjo and Sampson as applied to claim 1 above do not specifically disclose, as per applicants claim 6, that the cassette has a second non-contacting tag capable of communicating with the reader of the printer.

However, Kitsuki, also drawn to a thermal transfer cassette control method, disclose that the cassette may be provided with more than one light diffractive structure (non-contacting) tag 7,8,9,10 which are each capable of providing a specific data set to the reading means of the printer (Figures 1-3; column 2, lines 30-40). Kitsuki discloses that a second, and additional tags, allows for communication of various additional properties, such as color types and usage types. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to add these additional tags as in Kitsuki in order to communicate additional information about the preferred transfer process.

Response to Arguments

8. This application is a continuation of 10/042,033. Claims 1-7 correspond to the originally filed claims 6-11 and 5 which were examined by the examiner in that application. Claim 1 of the instant application has all of the substantive limitations of claim 6 of the parent application.

9. Applicant's arguments filed 2/4/2004 with regard to all claims have been fully considered but they are not persuasive.

10. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies

(i.e., 2-way communication) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The claims as currently worded merely call for a communication function, which comprises 1-way communication.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R. Koch III whose telephone number is (571) 272-1230 (TDD only). If the applicant cannot make a direct TDD-to-TDD call, the applicant can communicate by calling the Federal Relay Service at 1-800-877-8339 and giving the operator the above TDD number. The examiner can normally be reached on M-Th 10-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1734

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



GRK
June 1st, 2004

George R. Koch III
Patent Examiner
Art Unit 1734